L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985:455483 CAPLUS
DN 103:55483
OREF 103:8949a,8952a
ED Entered STN: 24 Aug 1985
TI Water-soluble blocked isocyanates
PA Daiichi Kogyo Seiyaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08G018-80
ICA C09D003-72
CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 37
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 60040121	A	19850302	JP 1983-148598	19830813 <--
JP 63012488	B	19880319		
PRAI JP 1983-148598		19830813		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 60040121	ICM	C08G018-80
	ICA	C09D003-72
	IPCI	C08G0018-80 [ICM,4]; C08G0018-00 [ICM,4,C*]; C09D0003-72 [ICA,4]
	IPCR	C08G0018-00 [I,C*]; C08G0018-00 [I,A]; C08G0018-80 [I,A]; C09D0175-00 [I,C*]; C09D0175-00 [I,A]

AB The isocyanates, having excellent storability are prepared by blocking (A) organic isocyanate monomer or urethane prepolymer having ≥1 NCO [prepared by reaction of a compound having OH group(s) and an organic polyisocyanate] with (B) imidazole or its derivs. at the (NCO group of A)/(NH group of B) molar ratio ≤1.0 and by blocking the isocyanate with ≥80 mol% (based on B) inorg. acid, organic acid, or quaternary cationization agents. Thus, 16.8 parts 1,6-hexamethylene diisocyanate and 100 parts polyethylene-polypropylene glycol glycerol ether were mixed 60 min at 90° to give a urethane prepolymer (I, 3.50% NCO). Then, 10.7 parts 2-isopropylimidazole in 20 parts MEK was mixed 3 h with I at 60°, 13.46 parts 85% H3PO4 solution added, the mixture stirred 30 min at 30°, and 288.4 parts water added to give a transparent and viscous blocked isocyanate solution containing 30% cationic resin and having storability >3 mo. This solution 10, 5% NaHCO3 solution 2, and Elastron Catalyst 32 (catalyst) 0.3 part were mixed well, dried 2 h at 50°, and heated 10 min at 140° to give an elastic urethane resin film.
ST water soluble blocked polyisocyanate; imidazole blocking agent polyurethane; quaternary cationization agent urethane resin; storage stable blocked polyisocyanate soln
IT Coating materials
(water-dispersible, polyurethane, storage-stable imidazole-blocked polyisocyanates for)
IT 64-19-7, uses and miscellaneous 64-67-5 7664-38-2, uses and miscellaneous
RL: USES (Uses)
(in manufacture of water-soluble blocked polyisocyanates)
IT 288-32-4DP, polyisocyanates blocked by 36947-68-9DP, polyisocyanates blocked by 50790-93-7DP, polyisocyanates blocked by 62292-90-4DP, imidazole derivative-blocked 97476-79-4DP, imidazole derivative-blocked
RL: PREP (Preparation)
(manufacture of water-soluble, storable, catalysts for)
RN 64-19-7

RN 64-67-5
RN 7664-38-2
RN 288-32-4DP
RN 36947-68-9DP
RN 50790-93-7DP
RN 62292-90-4DP
RN 97476-79-4DP

L4 ANSWER 2 OF 3 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN
AN 1985-090469 [15] WPIX
DNC C1985-039327 [21]
TI Water solution blocked poly-isocyanate(s) preparation - by reacting imidazole blocked poly-isocyanate with acid or salt to improve storage stability
DC A25
IN GOTO S; KITAMURA M; SATO K
PA (DAII-C) DAIICHI KOGYO SEIYAKU CO LTD
CYC 1
PI JP 60040121 A 19850302 (198515)* JA 6[0] <--
JP 63012488 B 19880319 (198815) JA
ADT JP 60040121 A JP 1983-148598 19830813; JP 63012488 B JP 1983-148598 19830813
PRAI JP 1983-148598 19830813
IPCR C08G0018-00 [I,A]; C08G0018-00 [I,C]; C08G0018-80 [I,A]; C09D0175-00 [I,A]; C09D0175-00 [I,C]
AB JP 60040121 A UPAB: 20050423
Preparation comprises (1) reacting (i) urethane prepolymer or organic isocyanates having more than 1 free NCO-gp. obtd. from (a) cpd. having at least one of OH gp. and (b) organic polyisocyanate monomer, and (ii) imidazole or substd. imidazole, and preparing blocked isocyanates, wherein ratio of (NCO gp. in the cpd. (i))/(NH gp. in the cpd. (ii)) ranges less than 1.0, and (2) reacting 0.8 mol. (based on cpd. (ii) of (c) acids or 0.8 mol. (based on cpd. (ii) of cpd. (d) to prepare the quat. material. The cpd. (a) includes e.g. polyethylene glycol monoalkyl ether, polyether polyol, polyester polyol or polybutadiene glycol. The cpd. (ii) includes e.g. 2-methylimidazole, 2-n-butylimidazole or 2,4-dimethylimidazole. The cpd. (d) includes e.g. methyliodide, diethylsulphate or benzylchloride. The cpd. (c) includes e.g. sulphuric acid, phosphoric acid, acetic acid or formic acid.
USE/ADVANTAGE - The blocked polyisocyanates solution with improved storage stability is prepared The blocked polyisocyanate is used for adhesives, paints, emulsifier or as treating agents for fibres.
MC CPI: A05-G01A

L4 ANSWER 3 OF 3 JAPIO (C) 2008 JPO on STN
AN 1985-040121 JAPIO
TI PREPARATION OF WATER-SOLUBLE BLOCKED ISOCYANATE COMPOUND
IN GOTO SUMIO; KITAMURA MASATO; SATO KAZUO
PA DAI ICHI KOGYO SEIYAKU CO LTD
PI JP 60040121 A 19850302 Showa
AI JP 1983-148598 (JP58148598 Showa) 19830813
PRAI JP 1983-148598 19830813
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1985
IC ICM C08G018-80
ICA C09D003-72
AB PURPOSE: To obtain the titled compound neither to be expanded nor to be cured in the presence of water, having improved storage stability, by blocking a specific urethane prepolymer, etc. with an imidazole compound in a specific ratio, reacting it with a specific inorganic acid, organic acid, etc.
CONSTITUTION: (A) A urethane prepolymer or organic isocyanate monomer containing one or more free NCO groups in one molecule obtained by reacting a compound containing one or more hydroxyl groups in one molecule with an organic polyisocyanate is blocked with (B) a (substituted) imidazole compound in a molar ratio of NCO group of the component A/NH

group of the component B of <=1.0. The blocked urethane prepolymer, etc. is reacted with >=0.8mol inorganic acid or organic acid (e.g., sulfuric acid, phosphoric acid, etc.) based on the component B, or >=0.8mol quaternizing agent (e.g., methyl iodide, dimethyl sulfate, etc.) based on the component B, to give the desired compound.

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